

LISTING OF CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

Claim 1 (Currently Amended): A method for making a field-effect semiconductor device comprising the steps of:

forming an AlGa_N barrier layer over an insulating substrate;
forming a Ga_N layer over the AlGa_N barrier layer;
forming an AlGa_N spacer layer over the Ga_N layer;
forming a Si-doped AlGa_N layer over the AlGa_N spacer layer;
forming an AlGa_N cap layer over the Si-containing carrier-supplying layer;
wherein the AlGa_N barrier layer, the Ga_N layer, the AlGa_N spacer layer, the Si-doped AlGa_N layer, and the AlGa_N cap layer comprise a gallium nitride-based compound semiconductor layer represented by the formula $Al_xIn_yGa_{1-x-y}N$, wherein $x + y = 1$, $0 \leq x \leq 1$, and $0 \leq y \leq 1$;

forming a multi-layer gate electrode on [[a]] the gallium nitride-based compound semiconductor layer, the multi-layer gate electrode being formed to include at least one high-melting-point metal layer having a thickness greater than 200 nm comprising a gallium nitride-based compound semiconductor represented by the formula $Al_xIn_yGa_{1-x-y}N$, wherein $x + y = 1$, $0 \leq x \leq 1$, and $0 \leq y \leq 1$; and

forming a source electrode and a drain electrode by self-alignment using the gate electrode as a mask.

Claim 2 (Currently Amended): [[A]] The method for making a field-effect semiconductor device according to Claim 1, wherein, in the step of forming the gate

electrode, the gate electrode is formed into a predetermined pattern, and in the step of forming the source electrode and the drain electrode, the source electrode and the drain electrode are formed by vapor deposition using an electrode material.

Claim 3 (Currently Amended): [[A]] The method for making a field-effect semiconductor device according to Claim 1, wherein the gate electrode has a T-shaped cross section, and the source electrode and the drain electrode are formed so as to be lower than the bottom face of an overhang of the T-shaped gate electrode.

Claim 4 (Currently Amended): [[A]] The method for making a field-effect semiconductor device according to Claim 2, further comprising, after the step of forming the source electrode and the drain electrode, a step of removing the source and drain electrode material deposited on the gate electrode.

Claims 5-6 (Canceled).

Claim 7 (Currently Amended): [[A]] The method for making a field-effect semiconductor device according to ~~either~~ Claim ~~5 or 6~~ 1, wherein the high-melting-point metal comprises at least one metal selected from the group consisting of Mo, Pt, W, Hf, and Cr.

Claims 8-18 (Canceled).